Natural Resources Conservation Service

NC Forage and Pasture Technical Note No. 1

Planning Procedures and Considerations on Grazing Lands

Conservation Planning Procedure from the National Planning Procedures Handbook (NPPH)	Additional Considerations for NC Grazing Plan Development
1. Identify Problems and Opportunities – Complete an initial determination of the client's problems, opportunities, and concerns related to natural resources and human considerations and identify the planning area. – Begin recording identified problems, opportunities, and concerns. – Discuss the process involved in conducting an inventory and evaluation of the resources 2. Determine Objectives – Reach agreement on the client's expectations for the planning effort – Document the client's objectives – Determine whether the client's objectives are consistent with those of the conservation district and NRCS – Determine if NRCS has the appropriate technology or resources – Determine the next steps and a schedule to complete the planning process	A good understanding of the client's goals, interests, and objectives is essential to develop a successful grazing plan. A successful plan protects the forage resource base and facilitates adoption of planned conservation practices and management techniques. Developing credibility-based working relationships and personal "outlook" will impact the client's desire to implement the plan. It is critical to be aware of factors that may limit the client's ability to reach his or her goals and those that will protect natural resources. It is important to talk with the producer about how the planning alternatives will affect farm workload, operating expenses, and business sustainability prior to decision making. If the farmers does not already have an adequate assessment of his or her business standing, or expresses a desire to become more equipped for the financial market, working with him/ her on partial budgeting or enterprise budgeting may be important. When the planner or the producer is uncomfortable with farm financial planning, there are many resources available locally and at a national scale. Farm forage and hay production, herd management, and marketing cycles will have an impact on feed and pasture management, so these should be discussed. It is a good idea to take photos of benchmark conditions on the farm.

Conservation Planning Procedure from the National Planning Procedures Handbook (NPPH)	Additional Considerations for NC Grazing Plan Development
3. Inventory Resources – Establish the types of inventories and degree of detail needed in the inventory – Collect available information – Maintain good communications between the client and planner through the resource inventory process – Conduct the inventory onsite. Include the client in the field inventory activities. – Use natural resources as teaching aids while in the field with the client – Record resource inventory data to facilitate analysis in the next step	**A.** Walk the pastures and determine information needed to complete the Pasture Condition Scorecard (PCS) i. Desirable species ii. Live plant cover iii. Plant diversity iv. Plant residue v. Plant vigor - soil fertility, N status of plants, severity of use, site adaptation of desired species, climatic stress, insect and disease pressure vi. Legumes vii. Uniformity of grazing viii. Livestock lounging ix. Soil compaction x. Erosion **B.** Through interviews with the farmer and personal observation, collection information about the Animals on the farm i. animal species and type ii. animal size/ weights iii. birthing efficiency iv. body condition score v. birthing/ weaning dates vi. culling vii. relevant health problems **C.** Inventory the Forage i. Identify the major species in the pastures ii. Identify the major soil types in the field in order to obtain yield data from RYE database or (in the near future) information from the Forage Suitability Groups iii. Estimating the current or benchmark forage production in each pasture will be influenced by pasture condition evaluation, especially plant species composition, live plant cover, soil fertility status, and severity of grazing. **D.** Inventory Existing Stored Forage, Feeding sites, Water Sources, and Fence i. Amount of stored hay produced on planned farm as well as amount of hay coming from off-farm sources ii. Are there environmentally sound areas to feed on the farm? Locate them if so.

Conservation Planning Procedure from the National Planning Procedures Handbook	Additional Considerations for NC Grazing Plan Development
4. Analyze Resource Data – Determine the method of analyses to be completed – Establish scope, intensity, degree of accuracy, and procedures to be used, utilizing discipline specialists as needed. – Conduct analysis – Compare the results of the analysis with planning criteria, problems, opportunities, and objectives – Describe and record the benchmark conditions – Produce resource maps and reports	**A.** Calculate & tally the pasture condition score card i. What is the current management condition & how will this effect yield? ii. What are the primary resource concerns that need to be addressed? **B.** Utilize C-Graz to reach a benchmark forage- animal balance i. What is the estimated livestock number "carrying capacity" from farm produced forage amounts? ii. Does the current species composition of the pastures support the farm's needs? iii. Is the balance negative or positive? **C.** Assess Current water sources i. Is access to streams or ponds for livestock water potentially causing water quality degradation? If so, is fencing needed to address the resource concern? ii. Are current watering facilities adequate in size, number, and location? Is the participant willing to change on this item? iii. Consult the Watering Facility standard (PC 614) **D.** Assess Current fencing i. Is exclusion fencing needed? ii. Is electric fencing used; if so is the voltage and amperage sufficient for the farm's operations? iii. Is temporary fencing used? Has the farmer experienced difficulties with it or is he/she hesitant about trying it? iv. How many paddocks are currently on the farm? Is the client willing to additionally subdivide the farm? Does he/ she have the time or interest to frequently move animals? **E.** Assess Current feeding/ lounging sites i. Does farm produced forage quantity and availability indicate feeding necessary on this farm? Does producer currently feed? If so, how often? Is it possible to rotationally feed? ii. What is the environmental impact of current feeding practices and locations? (nutrients, erosion, compaction, etc.) Does the current location of feeding areas potentially cause water quality degradation ? iii. Utilize the Feeding Site Assessment Tool iv. Are there opportunities to stockpile forage instead of feeding hay? Has the client heard of stockpiling or had any interest? v. Are there months of the year that would be better for feeding hay than others to protect resources?

Conservation Planning Procedure from the National Planning Procedures Handbook	REQUIREMENTS OF THE PRESCRIBED GRAZING STANDARD (PC 528) (p. 1 of 2)
5. Formulate Alternatives – Build the conservation system alternatives 6. Evaluate Alternatives – Determine the effects of each alternative – Evaluate each alternative for potential negative effects – Identify potential sources of financial assistance – Review the alternatives and their effects with the clients 7. Make Decisions – Discuss the alternatives – The client makes decisions – After the client selects an alternative to implement, prepare the plan documents – Deliver the plan to the client – Discuss the next follow-up or implementation assistance	**A.** Utilize C-Graz to develop & evaluate alternative scenarios for forage species, herd size, birthing/ weaning dates, amount of land, etc. i. work with the client on choosing the alternative that meets his or her objectives. **B.** Describe the Target Start/ Stop Grazing heights for each species i. recognize the percentage of the pasture in each species ii. C-Graz will summarize for each species, but the planner should clearly articulate these to the client when going over the plan or walking the pastures with the producer. iii. relate planned heights to current forage use on the farm. **C.** Describe the location of existing or planned fencing. i. Provide a conservation plan map showing the location of all existing and proposed fences that will facilitate animal control, grazing management, and any exclusion of environmentally sensitive areas. ii. Plan fences so that the pastures are as uniform as possible: a) production and regrowth potential within the pasture is similar over the whole pasture, b) landscape type within the pasture is similar, c) species composition within each paddock is similar. iii. The utilization efficiency and manure/ urine distribution is usually better when there are sufficient pastures to allow for use of forage within pastures every 2 to 3 days. **D.** Describe location of planned Watering Facilities i. provide a conservation plan map showing the location of all existing and planned watering facilities ii. As a minimum, there should be one or two permanent, freeze-proof sources on the farm to meet minimal grazing management. Consult PC 614. iii. Placement is important! Consider shade (NOT IN), minerals, and feeding to optimize use of forage in the pasture. Locating the facility in the middle of pasture will encourage more uniform distribution of grazing, manure, and urine; temporary subdivisions also lend themselves to more uniform distribution iv. Consider the additional use of temporary watering sites

Conservation Planning Procedure from the National Planning Procedures Handbook (NPPH)	REQUIREMENTS OF THE PRESCRIBED GRAZING STANDARD (PC 528) Continued…. (p. 2 of 2)
	E. Describe location and management of existing and any planned concentrated feeding areas i. Indicate on the conservation map the most appropriate locations for concentrated feeding sites. ii. Consider landscape position relative to water flow, vegetation survival and nutrient needs and replanting or renovation and harvesting potential. iii. Consider neighbors, road frontage, and other nearby points of interest iv. If existing feeding areas are going to continue to be used, prescribe conservation practices and management techniques to minimize environmental impacts. **F.** Develop a contingency plan or Emergency Management Alternatives i. This list should identify alternative ways to adjust the grazing plan when unexpected problems (drought, fire, freezing, flooding, pest outbreaks) or poor management cause the feed supply and demand to get out of balance. ii. This is a guide for adjusting the grazing plan to economically meet animal needs without resource degradation iii. It is important to have a discussion of this plan with the client **G.** Provide an Operation & Maintenance Plan i. Implementation of the grazing plan as part of an effective long term management strategy will require making adjustments on a continuing basis to ensure that the objectives of the plan are met. ii. All facilitating practices must be maintained to achieve a successful grazing plan that addresses resource concerns and sustainability of the operation iii. Precaution should be exercised when working with animals and equipment to reduce the risk of injury to humans or damage to property or equipment

Conservation Planning Procedure from the National Planning Procedures Handbook (NPPH)	Additional Considerations for NC Grazing Plan Development
8. Implement the Plan – Review the plan with the client. If necessary, revise the existing plan or develop a new plan – Complete the field data collection, including surveys for practice design – Complete practice designs and job sheets – Review the designs, practice job sheets, practice specifications, and estimated costs with the client – stake the treatment area as needed to define the location and extent of the practice or structure – provide practice implementation inspections, as needed. – conduct a final certification of the practice – Document the completed practice – Review the operation and maintenance requirements with the client – Schedule follow-up assistance 9. Evaluate the Plan – Meet with the client to evaluate the plan – Prepare for the follow-up and evaluation with the client by reviewing existing information and materials – Review and evaluate the plan with the client – Determine if adjustments are needed for management practices or systems – Evaluate the status of conservation district cooperator working arrangements – Determine the need for a plan revision, development of a new plan, or cancellation of the plan – Revise the plan – Update the assistance notes – Conduct a case study, if appropriate	**A.** It is extremely important that there be a plan to teach the client how to change his or her management on the farm. i. utilizing a calendar of activities is a good idea ii. ensuring that the grazing plan is a usable, understandable product for the client is important. The planner may want to put together a "notebook" of resources, if necessary. iii. The client should be made aware of demonstrations within driving distance of his or her farm. iv. one-on-one, hands-on assistance is always the best teaching tool. Utilize resources with partnering agencies. **B.** Document characteristics or observations that indicate whether the grazing plan is meeting intended purposes. Identify specific areas (riparian, feeding, lounging, training) and pasture grazing heights of primary vegetation that the manager should evaluate in making grazing management decisions. Talk with the producer about his or her experiences with the plan. **C.** Records of pasture production, animal performance, animal use, management activities, and weather conditions can be useful in making decision about future changes that will affect the resources. In some cases there may be state or local rules requiring specific records be kept. **D.** Photos taken at specific sites will be useful. **E.** Utilize the Prescribed Grazing Checklist. **F. Ensure that participant is aware that one or two instances of forage in a paddock being grazed below the target grazing height DOES NOT mean that he or she has failed to implement the Prescribed Grazing (PC 528) conservation practice. NRCS strives to look at the overall health and management of the system when evaluating implementation efficacy.**